Pharmacologic Management of Pain Expert Column

What Are We Afraid Of? Barriers to Providing Adequate Pain Relief

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Introduction

In the 1990s, national health associations including the American Pain Society (APS) and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) addressed the widespread problem of inadequate pain management.[1,2] The APS published a consensus statement for the management of acute pain and cancer pain in 1995.[3] These recommendations were updated and expanded in 2005.[1] They call for appropriate assessment, interdisciplinary care planning, and therapy that is efficacious, cost conscious, patient-centered, timely, culturally appropriate, safe, and equitable.[1] Standards adopted by the JCAHO in 2001 require ongoing education of providers and patients, pain assessment throughout hospitalization, discharge planning that includes pain management, and quality management programs that measure progress.[2,4] Despite the increased focus on pain management and the implementation of formal guidelines and standards for the management of pain, a significant number of patients continue to experience unacceptable levels of pain.[5] This article addresses barriers that interfere with providing adequate pain relief.

Regulatory Issues

The total quantity of opioids prescribed in the United States has increased substantially since the mid-1990s. Nevertheless, many physicians remain reluctant to prescribe opioids or to prescribe them in adequate doses.[2,6] A major concern is that prescribing adequate opioid analgesics will result in unnecessary scrutiny by regulatory authorities. To address this and related concerns, the Federation of State Medical Boards (FSMB) put forth recommendations for the use of controlled substances for the treatment of pain in 1998.[6] This model policy was updated in 2004. As of 2007, 28 states have adopted the policy verbatim and 10 additional states have adopted recommendations with similar wording. These recommendations recognize that opioid therapy is a legitimate choice for managing both acute and chronic pain.[7]

In cooperation with the Wisconsin Pain and Policy Studies Group, the FSMB conducted national surveys in 1991, 1997, and 2004 to identify the knowledge and attitudes of state medical board members with regard to prescribing opioids for pain management.[8] The proportion of respondents who believed that extended use of opioids for cancer pain was acceptable rose modestly but significantly from 75% in 1991, to 82% in 1997, and to 87% in 2004. For chronic noncancer pain, the changes were substantial: from only 12% in 1991, to 33% in 1997, and to 67% in 2004. Despite this progress, in 2004 nearly 1 in 3 respondents still questioned the use of opioids for managing chronic noncancer pain.[8] Also in 2004, 37% asserted they were unfamiliar with the 1998 model recommendations, 41% believed that dosages greater than those listed in the *Physician's Desk Reference* or on the product package insert were probably excessive and cause for concern, and 28% doubted the legitimacy of issuing prescription orders for more than one opioid for an individual patient. Unlike for the earlier surveys, the majority did understand the differences between addiction, dependency, and tolerance.[8] Thus progress has been made, but the data suggest that not all physicians who manage pain are familiar with or are applying the latest standards.

Formulary Issues

Some of the most effective analgesics may not be included on formularies because of high costs, a requirement for preauthorization, or high copayments because of third-tier status. In a large sample of physicians who responded to the 2000 National Ambulatory Medical Care Survey, nearly two thirds (64.45%) did not know the formulary status of drugs they were prescribing.[9] In part this was because different health insurance plans approved different agents for their plans. Creators and managers of hospital and insurance provider formularies need to improve communications with healthcare providers. Otherwise, patients may receive prescriptions for

analgesics they cannot obtain or afford.[9]

Management of Acute Pain

Acute pain has an immediate, identifiable cause, for example, trauma. As such, it has a protective function, acting as a physiologic "Do Not Disturb" sign.[10] Pain is a primary complaint in up to 78% of emergency visits.[11] The emergency department is a challenging environment in which to address pain. Time and attention that can be given to each patient is limited .The patient population is often transient and unfamiliar to the staff. Physicians are often reluctant to order pain medication for patients when they do not have access to their medical records. The delivery of needed pain medications is often delayed until the completion of diagnostic testing and/or consultation.[4,12,13] When patients are given pain prescriptions at discharge, the medications are almost always of limited duration, providing as-needed relief. Rarely do they include a long-acting agent or a combination of a long-acting agent and a short-acting one for flare ups.[12] Patients who cannot afford to or otherwise choose not to see a physician as follow-up are soon left without any medication to address the pain.

An observational, prospective study among 842 patients with moderate to severe pain as the chief complaint seen at 20 emergency departments in the United States and Canada demonstrated that pain in the emergency department was poorly managed.[11] As Figure 1 shows, overall, patients had high levels of pain intensity (≥ 5 out of 10) at arrival and at discharge, with relatively small changes in pain intensity scores. There was a gap between patient expectations for pain medications and actual administration of pain medications, especially when the intensity of the presenting pain was severe. Patients also experienced a lengthy delay between arrival and delivery of pain medications.[11]

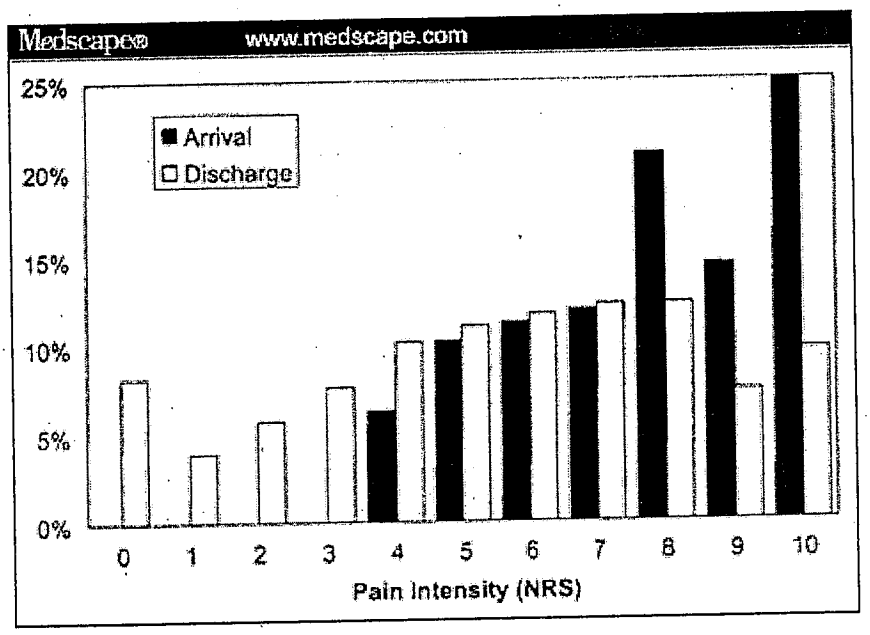

Figure 1.

Pain intensity in the emergency department on arrival and at discharge. Used with permission: Todd KH et al. J Pain. 2007;8:460-466.

Many healthcare providers in the emergency medicine setting have not received adequate training in the assessment and management of pain. Prescribing practices vary widely.[4] In a retrospective study of pain management in the emergency department, among 10 physicians, 1 was half as likely as the others to prescribe any pain medication and 7 times less likely than the physician who had the highest prescription rate. The same study compared the treatment offered by 4 different physicians to 4 patients with severe lower molar pain without signs of abscess. As the Table shows, treatment ranged from no pain medication in the emergency department and on discharge to the use of opioids both in the emergency department and on discharge.[14]

Management of Chronic Pain

Chronic pain develops when self-limited sensitization of the peripheral and central nervous systems from acute pain become persistent. It is a pathologic state in which pain may be the primary disease process.[10] Unrelieved pain can lead to clinical and psychological changes that increase morbidity and mortality, decrease quality of life, increase health-related costs, and lead to

patient dissatisfaction with and nonadherence with care.[5,8,15]

The potential for favorable long-term benefits from the use of opioids for the management of chronic pain is acknowledged in a joint consensus statement by the American Academy of Pain Medicine and the APS. Nevertheless, concerns remain regarding the use of opioids in this setting. In addition to the concern that prescribing opioids may welcome unwanted regulatory scrutiny, there is a concern that function may be compromised by persistent adverse effects or that repeated escalation may be required to overcome analgesic tolerance.[6,16]

In a recent open-label, uncontrolled registry study among patients with moderate to severe noncancer pain (osteoarthritis, diabetic neuropathy, or low back pain), 233 patients received long-term treatment (up to 3 years) with controlled-release oxycodone.[16] For the most part, adverse effects diminished with continued therapy. The most frequently reported adverse effects were constipation (15% of patients), nausea (12%), and somnolence (8%). The greatest need for dose titration for most patients occurred in the first 3 months of treatment. After that, further dose escalation was gradual and minimal. Only 6 patients (2.6%) were classified as exhibiting possible drug abuse or dependence; none were classified as exhibiting definite drug abuse or dependence.[16]

Patients should be monitored closely for adverse effects when opioids are initiated or titrated upward.[17] In a survey of 50 patients who had major abdominal surgery, patients placed almost equal importance on analgesic efficacy and the type and severity of adverse effects. Obtaining optimal pain control requires a balance between analgesia and adverse effects. Physicians need to recognize which potential adverse effects individual patients find most intolerable and how much pain individual patients will tolerate to reduce the severity of these effects.[18]

Disparities in Pain Management Among Different Patient Populations

Unfortunately, all patients are NOT treated equally. Disparities are seen along racial and ethnic lines and between men and women. Racial and ethnic minorities are at particularly high risk of receiving inadequate pain relief.[2] In a study that analyzed 13 years (1993-2005) of data regarding pain management from the National Hospital Ambulatory Medicine Care Survey, the proportion of patients who received opioids to manage pain increased steadily and significantly ($P < .001$) from 23% in 1993 to 37% in 2005. However, their use for nonwhites and Hispanics continued to lag behind that for whites (Figure 2).[2] For the 13-year period, the overall rate was 31% for whites, 23% for blacks, 24% for Hispanics, and 28% for Asians and all others. In 2005, the rate for whites was 40%; for all others it was 32%. A difference in opioid prescribing for whites and nonwhites was also consistently present across different levels of pain (mild, moderate, severe) and for different types of pain.[2]

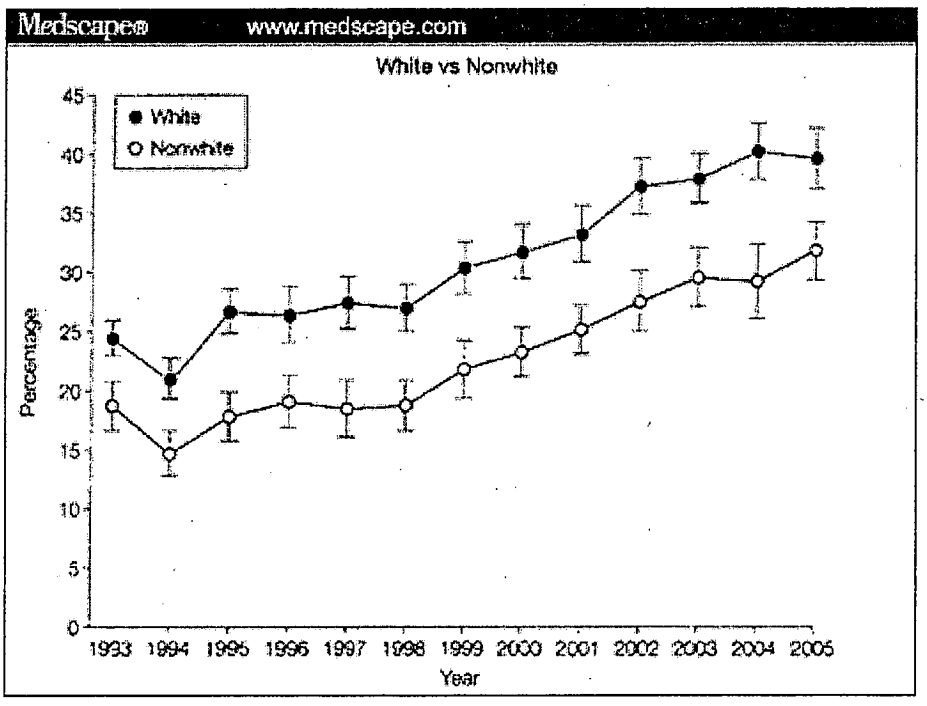

Figure 2.

Percentage of emergency department pain-related visits at which an opioid was prescribed by race: 1993-2005. Used with permission: Pletcher MJ et al. JAMA. 2008;299:70-78.

A patient's sex can also have an impact on the adequacy of pain management. In a cross-sectional survey in Michigan using patient vignettes, a statistically significantly greater proportion of the 368 physicians surveyed chose optimal pain treatment for men vs women after surgery ($P < .0001$). Of the physicians surveyed, 56.2% provided optimal pain medications for men following prostatectomy vs 42.4% and 44.5% of physicians who prescribed adequate pain medications for women following myomectomy and cesarean section, respectively.[15]

Patient Perception of Pain and Pain Medications

The perception of pain and its severity vary considerably among patients. The manner in which a patient expresses pain, whether emotive, vague, stoic, diffident, or demanding may reflect personality or cultural variations that are not easily appreciated by every physician or nurse.[4] Some patients are reluctant to discuss their pain because they fear it signals a worsening of their condition or takes attention away from their "real disease." Others believe that pain is an inevitable or necessary part of their condition or that bearing pain may be admirable or beneficial.[19] Differences in personal convictions or cultural norms also affect the extent to which patients report pain and their expectations for pain relief.[12] Overall, patients regard a 33% to 50% reduction in pain intensity as meaningful.[1] Patients who are involved in their pain management tend to have improved health outcomes. Pain management should be tailored to the needs, expectations, and circumstances of individual patients.[1] Physicians must appreciate the pain experience from the patient's perspective.[5]

Conclusion

Adequate pain relief is a reasonable and reachable goal for patients once barriers to achieving this goal are recognized, addressed, and overcome. National health associations recognize and have addressed these barriers. Individual health providers, in cooperation with informed patients, need to apply current knowledge regarding pain management to their daily practices to overcome these barriers.

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Table. Management of Severe Pain by 4 Physicians in 4 Patients With Lower Molar Pain Without Abscess

Patient/Physician	Emergency Department Therapy	Discharge Recommendation or Prescription*
1	None	None
2	None	OTC acetaminophen or ibuprofen
3	Oral ibuprofen 800 mg	Hydrocodone/acetaminophen 5 mg/500 mg, 10 tabs 1 q6h prn
4	Hydrocodone/acetaminophen 5 mg/500 mg 2 tabs	Hydrocodone/acetaminophen 7.5 mg/500 mg 15 tabs, 1 q4-6h prn

OTC = over the counter; tabs = tablets; q = every; h = hours; prn = as needed
*In addition to referral to a dentist.
Adapted from Heins et al. J Opioid Manage. 2006;2:335-340.

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